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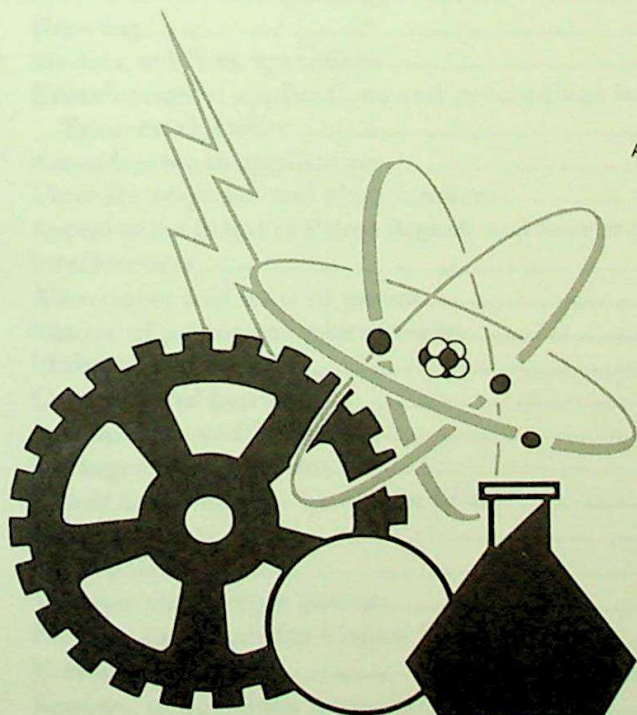
Barbara Hackman Franklin, Secretary

PATENT AND TRADEMARK OFFICE

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Assistant Secretary and Commissioner
of Patents and Trademarks

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ATLANTA, GEORGIA

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FUNCTIONS OF THE PATENT AND TRADEMARK OFFICE

The Patent and Trademark Office is an agency of the U.S. Department of Commerce.

The role of the Patent and Trademark Office is to provide patent protection for inventions and to register trademarks. It serves the interest of inventors and businesses with respect to their inventions and corporate, product, and service identifications. It also advises and assists the bureaus and offices of the Department of Commerce and other agencies of the Government in matters involving "intellectual property" such as patents, trademarks and semiconductor mask works. Through the preservation, classification, and dissemination of patent information, the Office aids and encourages innovation and the scientific and technical advancement of the Nation.

In discharging its duties, the Patent and Trademark Office examines applications and grants patents on inventions when applicants are entitled to them; it publishes and disseminates patent information, records assignments of patents, maintains search files of U.S. and foreign patents and a search room for public use in examining issued patents and records. It supplies copies of patents and official records to the public. Similar functions are performed relating to trademarks.

PURPOSE OF THIS BOOKLET

The purpose of this booklet is to give the reader some general information about patents and the operations of the Patent and Trademark Office. (A similar booklet is available on the subject of trademarks.) It attempts to answer many of the questions commonly asked of the Patent and Trademark Office but is not intended to be a comprehensive textbook on patent law or a guide for the patent lawyer. Consequently, many details are omitted and complications have been avoided as much as possible. It is hoped that this pamphlet will be useful to inventors and prospective applicants for patents, to students, and to others who may be interested in patents by giving them a brief general introduction to the subject.

Because of the large amount of mail received by the Patent and Trademark Office, a copy of this pamphlet, with particular sections marked when appropriate, may be used by the Patent and Trademark Office to reply to inquiries and is intended as a courtesy reply.

Additional information may be obtained from the publications listed on pages 6 and 7. The Patent and Trademark Office does not publish any textbooks on patent law, but a number of such works for the specialist and for the general reader have been published by private concerns.

WHAT IS A PATENT?

A patent for an invention is a grant of a property right by the Government to the inventor (or his heirs or assigns), acting through the Patent and Trademark Office. The term of the patent is 17 years from the date the patent is granted, subject to the payment of maintenance fees.

The right conferred by the patent grant extends throughout the United States and its territories and possessions.

The right conferred by the patent grant is, in the language of the statute and of the grant itself, "the right to exclude others from making, using, or selling" the invention. What is granted is not the right to make, use, or sell, but the right to exclude others from making, using, or selling the invention.

Most of the statements in the preceding paragraphs will be explained in greater detail in later sections.

Some persons occasionally confuse patents, copyrights, and trademarks. Although there may be some resemblance in the rights of these three kinds of intellectual property, they are different and serve different purposes.

Copyrights

A copyright protects the writings of an author against copying. Literary, dramatic, musical and artistic works are included within the protection of the copyright law, which in some instances also confers performing and recording rights. The copyright goes to the form of expression rather than to the subject matter of the writing. A description of a machine could be copyrighted as a writing, but this would only prevent others from copying the description; it would not prevent others from writing a description of their own or from making and using the machine. Copyrights are registered in the Copyright Office in the Library of Congress. Information concerning copyrights may be obtained from the Register of Copyrights, Library of Congress, Washington, D.C. 20559. (Telephone 202/479-0700)

Trademarks

A trademark relates to any word, name, symbol or device which is used in trade with goods to indicate the source or origin of the goods and to distinguish them from the goods of others. Trademark rights may be used to prevent others from using a confusingly similar mark but not to prevent others from making the same goods or from selling them under a non-confusing mark. Similar rights may be acquired in marks used in the sale or advertising of services (service marks). Trademarks and service marks which are used in interstate or foreign commerce may be registered in the Patent and Trademark Office. The procedure relating to the registration of trademarks and some general information concerning trademarks is given in a pamphlet called *Basic Facts About Trademarks*.

PATENT LAWS

The Constitution of the United States gives Congress the power to enact laws relating to patents, in Article I, section 8, which reads "Congress shall have power . . . to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." Under this power Congress has from time to time enacted various laws relating to patents. The first patent law was enacted in 1790. The law now in effect is a general revision which was enacted July 19, 1952, and which came into effect January 1, 1953. It is codified in Title 35, United States Code.

The patent law specifies the subject matter for which a patent may be obtained and the conditions for patentability. The law establishes the Patent and Trademark Office for administering the law relating to the granting of patents, and contains various other provisions relating to patents.

WHAT CAN BE PATENTED

The patent law specifies the general field of subject matter that can be patented and the conditions under which a patent may be obtained.

In the language of the statute, any person who "invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvements thereof, may obtain a patent," subject to the conditions and requirements of the law. By the word "process" is meant a process or method, and new processes, primarily industrial or technical processes, may be patented. The term "machine" used in the statute needs no explanation. The term "manufacture" refers to articles which are made, and includes all manufactured articles. The term "composition of matter" relates to chemical compositions and may include mixtures of ingredients as well as new chemical compounds. These classes of subject matter taken together include practically everything which is made by man and the process for making them.

The Atomic Energy Act of 1954 excludes the patenting of inventions useful solely in the utilization of special nuclear material or atomic energy for atomic weapons.

The patent law specifies that the subject matter must be "useful." The term "useful" in this connection refers to the condition that the subject matter has a useful purpose and also includes operativeness, that is, a machine which will not operate to perform the intended purpose would not be called useful, and therefore would not be granted a patent.

Interpretations of the statute by the courts have defined the limits of the field of subject matter which can be patented, thus it has been held that methods of doing business and printed matter cannot be patented.

In the case of mixtures of ingredients, such as medicines, a patent cannot be granted unless there is more to the mixture than the effect of its components. (So called patent medicines are ordinarily not patented; the

phrase "patent medicine" in this connection does not have the meaning that the medicine is patented.) A patent cannot be obtained upon a mere idea or suggestion. The patent is granted upon the new machine, manufacture, etc., as has been said, and not upon the idea or suggestion of the new machine. A complete description of the actual machine or other subject matter sought to be patented is required.

NOVELTY AND OTHER CONDITIONS FOR OBTAINING A PATENT

In order for an invention to be patentable it must be new as defined in the patent law, which provides that an invention cannot be patented if—

"(a) The invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or

"(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country more than one year prior to the application for patent in the United States. . . ."

If the invention has been described in a printed publication anywhere in the world, or if it has been in public use or on sale in this country before the date that the applicant made his invention, a patent cannot be obtained. If the invention has been described in a printed publication anywhere, or has been in public use or on sale in this country more than one year before the date on which an application for patent is filed in this country, a valid patent cannot be obtained. In this connection it is immaterial when the invention was made, or whether the printed publication or public use was by the inventor himself or by someone else. If the inventor describes the invention in a printed publication or uses the invention publicly, or places it on sale, he must apply for a patent before one year has gone by, otherwise any right to a patent will be lost.

Even if the subject matter sought to be patented is not exactly shown by the prior art, and involves one or more differences over the most nearly similar thing already known, a patent may still be refused if the differences would be obvious. The subject matter sought to be patented must be sufficiently different from what has been used or described before so that it may be said to be unobvious to a person having ordinary skill in the area of technology related to the invention. For example, the substitution of one material for another, or changes in size, are ordinarily not patentable.

THE UNITED STATES PATENT AND TRADEMARK OFFICE

Congress established the United States Patent and Trademark Office to issue patents on behalf of the Government. The Patent and Trademark Office as a distinct bureau may be said to date from the year 1802 when a separate official in the Department of State who became known as "Superintendent of Patents" was placed in charge of patents. The revision of the

patent laws enacted in 1836 reorganized the Patent and Trademark Office and designated the official in charge as Commissioner of Patents and Trademarks. The Patent and Trademark Office remained in the Department of State until 1849 when it was transferred to the Department of Interior. In 1925 it was transferred to the Department of Commerce where it is today.

The Patent and Trademark Office administers the patent laws as they relate to the granting of patents for inventions, and performs other duties relating to patents. It examines applications for patents to determine if the applicants are entitled to patents under the law and grants the patents when they are so entitled; it publishes issued patents and various publications concerning patents, records assignments of patents, maintains a search room for the use of the public to examine issued patents and records, supplies copies of records and other papers, and the like. Similar functions are performed with respect to the registration of trademarks. The Patent and Trademark Office has no jurisdiction over questions of infringement and the enforcement of patents, nor over matters relating to the promotion or utilization of patents or inventions.

The head of the Office is the Assistant Secretary and Commissioner of Patents and Trademarks and his staff includes the Deputy Assistant Secretary and Deputy Commissioner, several assistant commissioners, and other officials. As head of the Office, the Commissioner superintends or performs all duties respecting the granting and issuing of patents and the registration of trademarks; exercises general supervision over the entire work of the Patent and Trademark Office; prescribes the rules, subject to the approval of the Secretary of Commerce, for the conduct of proceedings in the Patent and Trademark Office and for recognition of attorneys and agents; decides various questions brought before him by petition as prescribed by the rules, and performs other duties necessary and required for the administration of the Patent and Trademark Office.

The work of examining applications for patents is divided among a number of examining groups, each group having jurisdiction over certain assigned fields of technology. Each group is headed by a group director and staffed by a number of examiners. The examiners review applications for patents and determine whether patents can be granted. An appeal can be taken to the Board of Patent Appeals and Interferences from their decisions refusing to grant a patent and a review by the Commissioner of Patents and Trademarks may be had on other matters by petition. The examiners also identify applications that claim the same invention and initiate proceedings, known as interferences, to determine who was the first inventor.

In addition to the examining groups, other offices perform various services, such as receiving and distributing mail, receiving new applications, handling sales of printed copies of patents, making copies of records, inspecting drawings, and recording assignments.

At present, the Patent and Trademark Office has about 4,400 employees, of whom about half are examiners and others with technical and legal training. Patent applications are received at the rate of over 170,000 per year. The Patent and Trademark Office receives over five million pieces of mail each year.

PUBLICATIONS OF THE PATENT AND TRADEMARK OFFICE

Patents—The specification and accompanying drawings of all patents are published on the day they are granted and printed copies are sold to the public by the Patent and Trademark Office. Over 5,000,000 patents have been issued.

Printed copies of any patent, identified by its patent number, may be purchased from the Patent and Trademark Office. See fee schedule.

Future patents classified in subclasses containing subject matter of interest may be obtained, as they issue, by prepayment of a deposit and a service charge. For the cost of such subscription service, a separate inquiry should be sent to the Patent and Trademark Office.

Official Gazette of the United States Patent and Trademark Office.—The *Official Gazette* of the United States Patent and Trademark Office is the official journal relating to patents and trademarks. It has been published weekly since January 1872 (replacing the old "Patent Office Reports"), and is now issued each Tuesday in two parts, one describing patents and the other trademarks. It contains a claim and a selected figure of the drawings of each patent granted on that day; notices of patent and trademark suits; indexes of patents and patentees; list of patents available for license or sale; and much general information such as orders, notices, changes in rules, changes in classification, etc. *The Official Gazette* is sold on subscription and by single copies by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

The illustrations and claims of the patents are arranged in the *Official Gazette* according to the Patent and Trademark Office classification of subject matter, permitting ready reference to patents in any particular field. Street addresses of patentees and a geographical index of residents of inventors are included. Copies of the *Official Gazette* may be found in public libraries of larger cities.

Index of Patents.—This annual index to the *Official Gazette* is currently in two volumes, one an index of patentees and the other an index by subject matter of the patents. Sold by Superintendent of Documents.

Index of Trademarks.—An annual index of registrants of trademarks. Sold by Superintendent of Documents.

Manual of Classification.—A looseleaf book containing a list of all the classes and subclasses of inventions in the Patent and Trademark Office classification systems, a subject matter index, and other information relating to classification. Substitute pages are issued from time to time. Annual subscription includes the basic manual and substitute pages. Sold by Superintendent of Documents.

Classification Definitions—Contains the changes in classification of patents as well as definitions of new and revised classes and subclasses. Sold by Patent and Trademark Office.

Title 37 Code of Federal Regulations.—Includes rules of practice for Patents, Trademarks and Copyrights. Available from the Superintendent of Documents.

Basic Facts about Trademarks—Contains general information for the layman about applications for, and registration of, trademarks and service marks. Copies may be purchased from Superintendent of Documents.

Directory of Registered Patent Attorneys and Agents Arranged by States and Countries—An alphabetical and geographical listing of patent attorneys and agents registered to practice before the U.S. Patent and Trademark Office. Sold by Superintendent of Documents.

Manual of Patent Examining Procedure.—A loose-leaf manual which serves primarily as a detailed reference work on patent examining practice and procedure for the Patent and Trademark Office's Examining Corps. Subscription service includes basic manual, quarterly revisions, and change notices. Sold by Superintendent of Documents.

The Story of the United States Patent Office.—A chronological account of the development of the U.S. Patent and Trademark Office and patent system and of inventions which had unusual impact on the American economy and society. Sold by Superintendent of Documents.

GENERAL INFORMATION AND CORRESPONDENCE

All business with the Patent and Trademark Office should be transacted by writing to "COMMISSIONER OF PATENTS AND TRADEMARKS, WASHINGTON, D.C. 20231." Correspondents should be sure to include their full return addresses, including Zip Codes.

The principal location of the office is Crystal Plaza 3, 2021 Jefferson Davis Highway, Arlington, Virginia. The personal attendance of applicants at the Office is unnecessary.

Applicants and attorneys are required to conduct their business with decorum and courtesy. Papers presented in violation of this requirement will be returned.

Separate letters (but not necessarily in separate envelopes) should be written in relation to each distinct subject of inquiry, such as assignments, payments, orders for printed copies of patents, orders for copies of records, requests for other services, etc. None of these should be included with letters responding to Office actions in applications (see page 19).

When a letter concerns a patent application, the correspondent must include the serial number, filing date and Group Art Unit number. When a letter concerns a patent, it must include the name of the patentee, the title of the invention, the patent number and the date of issue.

An order for a copy of an assignment must give the book and page or reel and frame of the record, as well as the name of the inventor; otherwise, an additional charge is made for the time consumed in making the search for the assignment.

Applications for patents are not open to the public, and no information concerning them is released except on written authority of the applicant, his assignee, or his attorney, or when necessary to the conduct of the business of the Office. Patents and related records, including records of any decisions, the records of assignments other than those relating to assignments of patent applications, books, and other records and papers in the Office are open to the public. They may be inspected in the Patent and Trademark Office Search Room or copies may be ordered.

The Office cannot respond to inquiries concerning the novelty and patentability of an invention in advance of the filing of an application; give advice as to possible infringement of a patent; advise of the propriety of filing an application; respond to inquiries as to whether or to whom any alleged invention has been patented; act as an expounder of the patent law or as counselor for individuals, except in deciding questions arising before it in regularly filed cases. Information of a general nature may be furnished either directly or by supplying or calling attention to an appropriate publication.

LIBRARY, SEARCH ROOM SEARCHES AND PATENT AND TRADEMARK DEPOSITORY LIBRARIES

The Scientific and Technical Information Center of the Patent and Trademark Office at Crystal Plaza 3, 2021 Jefferson Davis Highway, Arlington, Va., has available for public use over 120,000 volumes of scientific and technical books in various languages, about 90,000 bound volumes of periodicals devoted to science and technology, the official journals of 77 foreign patent organizations, and over 12 million foreign patents.

A Search Room is provided where the public may search and examine United States patents granted since 1836. Patents are arranged according to the Patent and Trademark Office classification system of over 400 classes and over 120,000 subclasses. By searching in these classified patents, it is possible to determine, before actually filing an application, whether an invention has been anticipated by a United States patent, and it is also possible to obtain the information contained in patents relating to any field of endeavor. The Search Room contains a set of United States patents arranged in numerical order and a complete set of the Official Gazette.

A Files Information Room also is maintained where the public may inspect the records and files of issued patents and other open records.

Applicants, their attorneys or agents, and the general public are not entitled to use the records and files in the examiners' rooms.

The Search Room is open from 8 a.m. to 8 p.m. Monday through Friday except on Federal holidays.

Since a patent is not always granted when an application is filed, many inventors attempt to make their own investigation before applying for a patent. This may be done in the Search Room of the Patent and Trademark Office, and libraries, located throughout the U.S., which have been designated as Patent and Trademark Depository Libraries (PTDL). Patent attorneys or agents may be employed to make a so-called

preliminary search through the prior United States patents to discover if the particular device or one similar to it has been shown in some prior patent. This search is not always as complete as that made by the Patent and Trademark Office during the examination of an application, but only serves, as its name indicates a preliminary purpose. For this reason, the Patent and Trademark Office examiner may, and often does, reject claims in an application on the basis of prior patents or publications not found in the preliminary search.

Those who cannot come to the Search Room may order from the Patent and Trademark Office copies of lists of original patents or of cross-referenced patents contained in the subclasses comprising the field of search, or may inspect and obtain copies of the patents at a Patent and Trademark Depository Library. The Patent and Trademark Depository Libraries (PTDLs) receive current issues of U.S. Patents and maintain collections of earlier issued patents and trademark information. The scope of these collections varies from library to library, ranging from patents of only recent years to all or most of the patents issued since 1790.

These patent collections are open to public use. Each of the Patent and Trademark Depository Libraries, in addition, offers the publications of the U.S. Patent Classification System (e.g., *The Manual of Classification*, *Index to the U.S. Patent Classification*, *Classification Definitions*, etc.) and other patent documents and forms, and provides technical staff assistance in their use to aid the public in gaining effective access to information contained in patents. The collections are organized in patent number sequence.

Available in all PTDLs is the Classification And Search Support Information System (CASSIS), computer data base. With various modes, it permits the effective identification of appropriate classifications to search, provides numbers of patents assigned to a classification to permit finding the patents in a numerical file of patents, provides the current classification(s) of all patents, permits word searching on classification titles, abstracts, the *Index* provides certain bibliographic information on more recently issued patents.

Facilities for making paper copies from either microfilm in reader-printers or from the bound volumes in paper-to-paper copies are generally provided for a fee.

Due to variations in the scope of patent collections among the Patent and Trademark Depository Libraries and in their hours of service to the public, anyone contemplating the use of the patents at a particular library is advised to contact that library, in advance, about its collection and hours, so as to avert possible inconvenience.

<i>State</i>	<i>Name of Library</i>
Alabama	Auburn University Libraries Birmingham Public Library
Alaska	Anchorage Municipal Libraries
Arizona	Tempe: Noble Library, Arizona State University
Arkansas	Little Rock: Arkansas State Library
California	Los Angeles Public Library Sacramento: California State Library San Diego Public Library Sunnyvale: Patent Information Clearinghouse
Colorado	Denver Public Library
Connecticut	New Haven: Science Park Library
Delaware	Newark: University of Delaware Library
District of Columbia	Washington: Howard University Libraries

Florida	Fort Lauderdale: Broward County Main Library Miami-Dade Public Library Orlando: University of Central Florida Libraries
Georgia	Atlanta: Price Gilbert Memorial Library, Georgia Institute of Technology
Idaho	Moscow: University of Idaho Library
Illinois	Chicago Public Library Springfield: Illinois State Library
Indiana	Indianapolis-Marion County Public Library West Lafayette: Purdue University Libraries
Iowa	Des Moines: State Library of Iowa
Kansas	Wichita: Ablah Library Wichita State University
Kentucky	Louisville Free Public Library
Louisiana	Baton Rouge: Troy H. Middleton Library, Louisiana State University
Maryland	College Park: Engineering and Physical Sciences Library, University of Maryland
Massachusetts	Amherst: Physical Sciences Library, University of Massachusetts Boston Public Library
Michigan	Ann Arbor: Engineering Transportation Library, University of Michigan Big Rapids: Abigail S. Timme Library, Ferris State Library Detroit Public Library
Minnesota	Minneapolis Public Library and Information Center
Missouri	Kansas City: Linda Hall Library St. Louis Public Library
Montana	Butte: Montana College of Mineral Science and Technology Library
Nebraska	Lincoln: Engineering Library, University of Nebraska-Lincoln
Nevada	Reno: University of Nevada-Reno Library
New Hampshire	Durham: University of New Hampshire Library
New Jersey	Newark Public Library Piscataway: Library of Science and Medicine at Rutgers University
New Mexico	Albuquerque: University of New Mexico Library
New York	Albany: New York State Library Buffalo and Erie County Public Library New York Public Library (The Research Libraries)
North Carolina	Raleigh: D. H. Hill Library, North Carolina State University
Ohio	Cincinnati and Hamilton County, Public Library of Cleveland Public Library Columbus: Ohio State University Libraries Toledo/Lucas County Public Library
Oklahoma	Stillwater: Oklahoma State University Library
Oregon	Salem: Oregon State Library
Pennsylvania	Philadelphia: The Free Library of Pittsburgh, Carnegie Library of University Park: Pattee Library, Pennsylvania State University
Rhode Island	Providence Public Library
South Carolina	Charleston: Medical University of South Carolina Library
Tennessee	Memphis and Shelby County Public Library and Information Center Nashville: Vanderbilt University Library
Texas	Austin: McKinney Engineering Library, University of Texas at Austin College Station: Sterling C. Evans Library, Texas A & M University Dallas Public Library Houston: The Fondren Library, Rice University
Utah	Salt Lake City: Marriott Library, University of Utah
Virginia	Richmond: Virginia Commonwealth University Library
Washington	Seattle: Engineering Library, University of Washington
West Virginia	Morgantown: Evansdale Library, West Virginia University
Wisconsin	Madison: Kurt F. Wendt Engineering Library, University of Wisconsin-Madison Milwaukee Public Library

ATTORNEYS AND AGENTS

The preparation of an application for patent and the conducting of the proceedings in the Patent and Trademark Office to obtain the patent is an undertaking requiring the knowledge of patent law and Patent and Trademark Office practice as well as knowledge of the scientific or technical matters involved in the particular invention.

Inventors may prepare their own applications and file them in the Patent and Trademark Office and conduct the proceedings themselves, but unless they are familiar with these matters or study them in detail, they may get into considerable difficulty. While a patent may be obtained in many cases by persons not skilled in this work, there would be no assurance that the patent obtained would adequately protect the particular invention.

Most inventors employ the services of registered patent attorneys or patent agents. The law gives the Patent and Trademark Office the power to make rules and regulations governing conduct and the recognition of patent attorneys and agents to practice before the Patent and Trademark Office. Persons who are not recognized by the Patent and Trademark Office for this practice are not permitted by law to represent inventors before the Patent and Trademark Office. The Patent and Trademark Office maintains a register of attorneys and agents. To be admitted to this register, a person must comply with the regulations prescribed by the Office, which require a showing that the person is of good moral character and of good repute and that he has the legal and scientific and technical qualifications necessary to render applicants for patents a valuable service. Certain of these qualifications must be demonstrated by the passing of an examination. Those admitted to the examination must have a college degree in engineering or physical science or the equivalent of such a degree. The Patent and Trademark Office registers both attorneys at law and persons who are not attorneys at law. The former persons are now referred to as "patent attorneys" and the latter persons are referred to as "patent agents." Insofar as the work of preparing an application for patent and conducting the prosecution in the Patent and Trademark Office is concerned, patent agents are usually just as well qualified as patent attorneys, although patent agents cannot conduct patent litigation in the courts or perform various services which the local jurisdiction considers as practicing law. For example, a patent agent could not draw up a contract relating to a patent, such as an assignment or a license, if the State in which he resides considers drawing contracts as practicing law.

Some individuals and organizations that are not registered advertise their services in the fields of patent searching and invention marketing and development. Such individuals and organizations cannot represent inventors before the Patent and Trademark Office. They are not subject to Patent and Trademark Office discipline, and the Office cannot assist inventors in dealing with them.

The Patent and Trademark Office cannot recommend any particular attorney or agent, or aid in the selection of an attorney or agent, as by stating, in response to inquiry that a named patent attorney, agent, or firm, is "reliable" or "capable." The Patent and Trademark Office publishes a directory of all registered patent attorneys and agents who have indicated their availability to accept new clients, arranged by states, cities, and foreign countries. The Directory must be purchased from the Government Printing Office.

The telephone directories of most large cities have, in the classified section, a heading for patent attorneys under which those in that area are listed. Many large cities have associations of patent attorneys.

In employing a patent attorney or agent, the inventor executes a power of attorney or authorization of agent which must be filed in the Patent and Trademark Office and is usually a part of the application papers. When an attorney has been appointed, the Office does not communicate with the inventor directly but conducts the correspondence with the attorney since he is acting for the inventor thereafter, although the inventor is free to

contact the Patent and Trademark Office concerning the status of his application. The inventor may remove the attorney or agent by revoking the power of authorization.

The Patent and Trademark Office has the power to disbar, or suspend from practicing before it, persons guilty of gross misconduct, etc., but this can only be done after a full hearing with the presentation of clear and convincing evidence concerning the misconduct. The Patent and Trademark Office will receive and, in appropriate cases, act upon complaints against attorneys and agents. The fees charged to inventors by patent attorneys and agents for their professional services are not subject to regulation by the Patent and Trademark Office. Definite evidence of overcharging may afford basis for Patent and Trademark Office action, but the Office rarely intervenes in disputes concerning fees.

DISCLOSURE DOCUMENT

One of the services provided for inventors is the acceptance and preservation for a two-year period of papers disclosing an invention. This disclosure is accepted as evidence of the dates of conception of the invention.

It will be retained for two years at which time it will be destroyed unless it is referred to in a separate letter in a related patent application.

A fee must accompany the disclosure. See current fee schedule. The disclosure is limited to written matter or drawings on paper or other thin, flexible material, such as linen or plastic drafting material, having dimensions or being folded to dimensions not to exceed 8-1/2 x 13 inches (21.6 by 33.0 cm). Photographs are acceptable. Each page should be numbered. Text and drawings should be of such quality as to permit reproduction.

The disclosure must be accompanied by a stamped, self-addressed envelope and a duplicate copy also signed by the inventor. The papers will be stamped with an identifying number and returned with the reminder that the Disclosure Document may be relied upon only as evidence of the date of conception and that an application must be filed in order to provide patent protection.

WHO MAY APPLY FOR A PATENT

According to the law, only the inventor may apply for a patent, with certain exceptions. If a person who is not the inventor should apply for a patent, the patent, if it were obtained, would be invalid. The person applying in such a case who falsely states that he/she is the inventor would also be subject to criminal penalties. If the inventor is dead, the application may be made by legal representatives, that is, the administrator or executor of the estate. If the inventor is insane, the application for patent may be made by a guardian. If an inventor refuses to apply for a patent or cannot be found, a joint inventor or a person having a proprietary interest in the invention may apply on behalf of the missing inventor.

If two or more persons make an invention jointly, they apply for a patent as joint inventors. A person who makes a financial contribution is not a joint inventor and cannot be joined in the application as an inventor. It is possible to correct an innocent mistake in erroneously omitting an inventor or in erroneously naming a person as an inventor.

Officers and employees of the Patent and Trademark Office are prohibited by law from applying for a patent or acquiring, directly or indirectly, except by inheritance or bequest, any patent or any right or interest in any patent.

APPLICATION FOR PATENT

An application for a patent is made to the Commissioner of Patents and Trademarks and includes:

- (1) A written document which comprises a specification (description and claims), and an oath or declaration;
- (2) A drawing in those cases in which a drawing is necessary; and
- (3) The filing fee. See fee schedule.

The specification and oath or declaration must be legibly written or printed in permanent ink on one side of the paper. The Office prefers typewriting on letter or legal size paper, 8 to 8½ by 10½ to 13 inches, (20.3 to 21.6 by 26.7 to 33.0 cm) 1½ or double spaced with margins of 1 inch (2.54 cm) on the left-hand side and at the top. If the papers filed are not correctly, legibly, and clearly written, the Patent and Trademark Office may require typewritten or printed papers.

The application for patent is not forwarded for examination until all its required parts, complying with the rules relating thereto, are received. If the papers and parts are incomplete, or so defective that they cannot be accepted as a complete application for examination, the applicant will be notified about the deficiencies and be given a time period in which to remedy them. A surcharge may be required. If the applicant does not respond within the prescribed time period, the application will be returned or otherwise disposed of. The filing fee may be refunded when an application is refused acceptance as incomplete; however, a handling fee will be charged.

It is desirable that all parts of the complete application be deposited in the Office together; otherwise each part must be signed and a letter must accompany each part, accurately and clearly connecting it with the other parts of the application.

All applications are numbered in serial order, and the applicant is informed of the serial number and filing date of the application by a filing receipt. The filing date of the application is the date on which the names of the inventors, a specification (including claims) and any required drawings are received in the Patent and Trademark Office; or the date on which the last part completing the application are received in the case of a previously incomplete or defective application.

Oath or Declaration, Signature

The oath or declaration of the applicant is required by law. The inventor must make an oath or declaration that he/she believes himself/herself to be the original and first inventor of the subject matter of the application, and he/she must make various other allegations required by law and various allegations required by the Patent and Trademark Office rules.

The oath must be sworn to by the inventor before a notary public or other officer authorized to administer oaths. A declaration may be used in lieu of an oath as part of the original application for a patent involving designs, plants, and other patentable inventions; for reissue patents; when claiming matter originally shown or described but not originally claimed; or when filing a divisional or continuing application. A declaration does not need to be notarized.

The application, oath or declaration must be signed by the inventor in person, or by the person entitled by law to make application on the inventor's behalf. A full first or middle name of each inventor without abbreviation and a middle or first initial, if any, is required. The post-office address of the inventor is also required.

Blank forms for applications or certain other papers are not supplied by the Patent and Trademark Office.

The papers in a complete application will not be returned for any purpose whatever, nor will the filing fee be returned. If applicants have not preserved copies of the papers, the Office will furnish copies for a fee.

Filing Fees*

The filing fee of an application, except in design and plant cases, consists of a basic fee and additional fees. The basic fee entitles applicant to present twenty (20) claims, including not more than three (3) in independent form. An additional fee is required for each claim in independent form which is in excess of three (3) and an additional fee is required for each claim (whether independent or dependent) which is in excess of a total of twenty (20) claims. If the application contains multiple dependent claims, additional fees are required.

If the owner of the invention is a small entity, (an independent inventor, a small business concern or a non-profit organization), the filing fees are reduced by half if the small entity files a verified statement. Copies of sample verification statements are enclosed.

To avoid errors in the payment of fees it is suggested that the table in the enclosed patent application transmittal letter be utilized to calculate the fee payment.

In calculating fees, a claim is in singularly dependent form if it incorporates by reference a single preceding claim which may be an independent or a dependent claim. A multiple dependent claim or any claim depending therefrom shall be considered as separate dependent claims in accordance with the number of claims to which reference is made.

The law also provides for the payment of additional fees on presentation of additional claims after the application is filed.

When an amendment is filed which presents additional claims over the total number already paid for, or additional independent claims over the number of independent claims already accounted for, it must be accompanied by any additional fees due.

* Please Note: The fees are current as of the revision date. Fees are subject to change in October each year therefore they should be verified before submission to the PTO. A fee schedule may be obtained by writing to Commissioner of Patents, Washington, D.C. 20231 - Attention Public Service Branch.

SPECIFICATION (DESCRIPTION AND CLAIMS)

The specification must include a written description of the invention and of the manner and process of making and using it, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the technological area to which the invention pertains, or with which it is most nearly connected, to make and use the same.

The specification must set forth the precise invention for which a patent is solicited, in such manner as to distinguish it from other inventions and from what is old. It must describe completely a specific embodiment of the process, machine, manufacture, composition of matter or improvement invented, and must explain the mode of operation or principle whenever applicable. The best mode contemplated by the inventor of carrying out his invention must be set forth.

In the case of an improvement, the specification must particularly point out the part or parts of the process, machine, manufacture, or composition of matter to which the improvement relates, and the description should be confined to the specific improvement and to such parts as necessarily cooperate with it or as may be necessary to a complete understanding or description of it.

The title of the invention, which should be as short and specific as possible, should appear as a heading on the first page of the specification, if it does not otherwise appear at the beginning of the application.

A brief abstract of the technical disclosure in the specification must be set forth in a separate page immediately following the claims in a separate paragraph under the heading "Abstract of the Disclosure."

A brief summary of the invention indicating its nature and substance, which may include a statement of the object of the invention, commensurate with the invention as claimed and any object recited should precede the detailed description. Such summary should be that of the invention as claimed.

When there are drawings, there shall be a brief description of the several views of the drawings, and the detailed description of the invention shall refer to the different views by specifying the numbers of the figures, and to the different parts by use of reference numerals.

The specification must conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as the invention.

The claims are brief descriptions of the subject matter of the invention, eliminating unnecessary details and reciting all essential features necessary to distinguish the invention from what is old. The claims are the operative part of the patent. Novelty and patentability are judged by the claims, and, when a patent is granted, questions of infringement are judged by the courts on the basis of the claims.

When more than one claim is presented, they may be placed in dependent form in which a claim may refer back to and further restrict one or more preceding claims.

A claim in multiple dependent form shall contain a reference, in the alternative only, to more than one claim previously set forth and then specify a further limitation of the subject matter claimed. A multiple dependent claim shall not serve as a basis for any other multiple dependent

claim. A multiple dependent claim shall be construed to incorporate by reference all the limitations of the particular claim in relation to which it is being considered.

The claim or claims must conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description.

The following order of arrangement should be observed in framing the specification:

- (a) Title of the invention.
- (b) Cross-references to related applications, if any.
- (c) Brief summary of the invention.
- (d) Brief description of the several views of the drawing, if there are drawings.
- (e) Detailed Description.
- (f) Claim or claims.
- (g) Abstract of the disclosure.

DRAWING

The applicant for a patent will be required by law to furnish a drawing of the invention whenever the nature of the case requires a drawing to understand the invention. However, the Commissioner may require a drawing where the nature of the subject matter admits of it; this drawing must be filed with the application. This includes practically all inventions except compositions of matter or processes, but a drawing may also be useful in the case of many processes.

The drawing must show every feature of the invention specified in the claims and is required by the Office rules to be in a particular form. The Office specifies the size of the sheet on which the drawing is made, the type of paper, the margins, and other details relating to the making of the drawing. The reason for specifying the standards in detail is that the drawings are printed and published in a uniform style when the patent issues, and the drawings must also be such that they can be readily understood by persons using the patent descriptions.

No names or other identification will be permitted within the "sight" of the drawing, and applicants are expected to use the space above and between the hole locations to identify each sheet of drawings. This identification may consist of the attorney's name and docket number or the inventor's name and case number and may include the sheet number and the total number of sheets filed (for example, "sheet 2 of 4"). The following rule, reproduced from title 37 of the Code of Federal Regulations, relates to the standards for drawings:

1.84 Standards for drawings.

(a) *Paper and ink.* Drawings must be made upon paper which is flexible, strong, white, smooth, non-shiny and durable. India ink, or its equivalent in quality, is preferred for pen drawings to secure perfectly black solid lines. The use of white pigment to cover lines is not normally acceptable.

(b) *Size of sheet and margins.* The size of the sheets on which drawings are made may either be exactly $8\frac{1}{2}$ by 14 inches (21.6 by 35.6 cm.) or exactly 21.0 by 29.7 cm. (DIN size A4). All drawing sheets in a particular application must be the same size. One of the shorter sides of the sheet is regarded as its top.

(1) On $8\frac{1}{2}$ by 14 inch drawing sheets, the drawings must include a top margin of 2 inches (5.1 cm.) and bottom and side margins of $\frac{1}{4}$ inch (6.4 mm.) from the edges, thereby leaving a "sight" precisely 8 by $11\frac{3}{4}$ inches (20.3 by 29.8 cm.). Margin border lines are not permitted. All work must be included within the "sight". The sheets may be provided with two $\frac{1}{4}$ inch (6.4 mm.) diameter holes having their centerlines spaced $11\frac{1}{16}$ inch (17.5 mm.) below the top edge and $2\frac{3}{4}$ inches (7.0 cm.) apart, said holes being equally spaced from the respective side edges.

(2) On 21.0 by 29.7 cm. drawing sheets, the drawing must include a top margin of at least 2.5 cm., a left side margin of 2.5 cm., a right side margin of 1.5 cm., and a bottom margin of 1.0 cm. Margin border lines are not permitted. All work must be contained within a sight size not to exceed 17 by 26.2 cm.

(c) *Character of lines.* All drawings must be made with drafting instruments or by a process which will give them satisfactory reproduction characteristics. Every line and letter must be durable, black, sufficiently dense and dark, uniformly thick and well defined; the weight of all lines and letters must be heavy enough to permit adequate reproduction. This direction applies to all lines however fine, to shading, and to lines representing cut surfaces in sectional views. All lines must be clean, sharp, and solid. Fine or crowded lines should be avoided. Solid black should not be used for sectional or surface shading. Freehand work should be avoided wherever it is possible to do so.

(d) *Hatching and shading.* (1) Hatching should be made by oblique parallel lines spaced sufficiently apart to enable the lines to be distinguished without difficulty. (2) Heavy lines on the shade side of objects should preferably be used except where they tend to thicken the work and obscure reference characters. The light should come from the upper left-hand corner at an angle of 45° . Surface delineations should preferably be shown by proper shading, which should be open.

(e) *Scale.* The scale to which a drawing is made ought to be large enough to show the mechanism without crowding when the drawing is reduced in size to two-thirds in reproduction, and views of portions of the mechanism on a larger scale should be used when necessary to show details clearly; two or more sheets should be used if one does not give sufficient room to accomplish this end, but the number of sheets should not be more than is necessary.

(f) *Reference characters.* The different views should be consecutively numbered figures. Reference numerals (and letters, but numerals are preferred) must be plain, legible and carefully formed, and not be encircled. They should, if possible, measure at least one-eighth of an inch (3.2 mm.) in height so that they may bear reduction to one twenty-fourth of an inch (1.1 mm.); and they may be slightly larger when there is sufficient

room. They should not be so placed in the close and complex parts of the drawing as to interfere with a thorough comprehension of the same, and therefore should rarely cross or mingle with the lines. When necessarily grouped around a certain part, they should be placed at a little distance, at the closest point where there is available space, and connected by lines with the parts to which they refer. They should not be placed upon hatched or shaded surfaces but when necessary, a blank space may be left in the hatching or shading where the character occurs so that it shall appear perfectly distinct and separate from the work. The same part of an invention appearing in more than one view of the drawing must always be designated by the same character, and the same character must never be used to designate different parts. Reference signs not mentioned in the description shall not appear in the drawing, and vice versa.

(g) *Symbols, legends.* Graphical drawing symbols and other labeled representations may be used for conventional elements when appropriate, subject to approval by the Office. The elements for which such symbols and labeled representation are used must be adequately identified in the specification. While descriptive matter on drawings is not permitted, suitable legends may be used, or may be required in proper cases, as in diagrammatic views and flow sheets or to show materials or where labeled representations are employed to illustrate conventional elements. Arrows may be required, in proper cases, to show direction of movement. The lettering should be as large as, or larger than, the reference characters.

(h) [*Reserved*]

(i) *Views.* The drawing must contain as many figures as may be necessary to show the invention; the figures should be consecutively numbered if possible in the order in which they appear. The figures may be plain, elevation, section, or perspective views, and detail views of portions of elements, on a larger scale if necessary, may also be used. Exploded views, with the separated parts of the same figure embraced by a bracket, to show the relationship or order of assembly of various parts are permissible. When necessary, a view of a large machine or device in its entirety, may be broken and extended over several sheets if there is no loss in facility of understanding the view. Where figures on two or more sheets form in effect a single complete figure, the figures on the several sheets should be so arranged that the complete figure can be understood by laying the drawing sheets adjacent to one another. The arrangement should be such that no part of any of the figures appearing on the various sheets are concealed and that the complete figure can be understood even though spaces will occur in the complete figure because of the margins on the drawing sheets. The plane upon which a sectional view is taken should be indicated on the general view by a broken line, the ends of which should be designated by numerals corresponding to the figure number of the sectional view and have arrows applied to indicate the direction in which the view is taken. A moved position may be shown by a broken line superimposed upon a suitable figure if this can be done without crowding, otherwise a separate figure must be used for this purpose. Modified forms of construction can only be shown in separate figures. Views should not be connected by projection lines nor should center lines be used.

(j) *Arrangement of views.* All views on the same sheet should stand in the same direction and, if possible, stand so that they can be read with the sheet held in an upright position. If views longer than the width of the sheet are necessary for the clearest illustration of the invention, the sheet may be turned on its side so that the top of the sheet with the appropriate top margin is on the right-hand side. One figure must not be placed upon another or within the outline of another.

(k) *Figure for Official Gazette.* The drawing should, as far as possible, be so planned that one of the views will be suitable for publication in the Official Gazette as the illustration of the invention.

(l) *Extraneous matter.* Identifying indicia (such as the attorney's docket number, inventor's name, number of sheets, etc.) not to exceed $2\frac{3}{4}$ inches (7.0 cm.) in width may be placed in a centered location between the side edges within three-fourths inch (19.1 mm.) of the top edge. Authorized security markings may be placed on the drawings provided they are outside the illustrations and are removed when the material is declassified. Other extraneous matter will not be permitted upon the face of a drawing.

(m) *Transmission of drawings.* Drawings transmitted to the Office should be sent flat, protected by a sheet of heavy binder's board, or may be rolled for transmission in a suitable mailing tube; but must never be folded. If received creased or mutilated, new drawings will be required. (See 1.152 for design drawing, 1.165 for plant drawings, and 1.174 for reissue drawings.)

The requirements relating to drawings are strictly enforced, but a drawing not complying with all of the regulations may be accepted for purpose of examination, and correction or a new drawing will be required later.

Applicants are advised to employ competent draftsmen to make their drawings.

MODELS, EXHIBITS, SPECIMENS

Models are not required in most patent applications since the description of the invention in the specification and the drawings must be sufficiently full and complete and capable of being understood to disclose the invention without the aid of a model. A model will not be admitted unless specifically requested by the examiner.

A working model, or other physical exhibit, may be required by the Office if deemed necessary. This is not done very often. A working model may be requested in the case of applications for patent for alleged perpetual motion devices.

When the invention relates to a composition of matter, the applicant may be required to furnish specimens of the composition, or of its ingredients or intermediates, for inspection or experiment. If the invention is a microbiological invention, a deposit of the micro-organism involved is required.

EXAMINATION OF APPLICATIONS AND PROCEEDINGS IN THE PATENT AND TRADEMARK OFFICE

Applications filed in the Patent and Trademark Office and accepted as complete applications are assigned for examination to the respective examining groups having charge of the areas of technology related to the invention. In the examining group, applications are taken up for examination by the examiner to whom they have been assigned in the order in which they have been filed or in accordance with examining procedures established by the Commissioner.

Applications will not be advanced out of turn for examination or for further action except as provided by the rules, or upon order of the Commissioner to expedite the business of the Office, or upon a verified showing which, in the opinion of the Commissioner, will justify advancing them.

The examination of the application consists of a study of the application for compliance with the legal requirements and a search through United States patents, prior foreign patent documents which are available in the Patent and Trademark Office, and available literature, to see if the claimed invention is new and unobvious. A decision is reached by the examiner in the light of the study and the result of the search.

Office Action

The applicant is notified in writing of the examiner's decision by an "action" which is normally mailed to the attorney or agent. The reasons for any adverse action or any objection or requirement are stated in the action and such information or references are given as may be useful in aiding the applicant to judge the propriety of continuing the prosecution of his application.

If the invention is not considered patentable subject matter, the claims will be rejected. If the examiner finds that the invention is not new, the claims will be rejected, but the claims may also be rejected if they differ only in an obvious manner from what is found. It is not uncommon for some or all of the claims to be rejected on the first action by the examiner; relatively few applications are allowed as filed.

Applicant's Response

The applicant must request reconsideration in writing, and must distinctly and specifically point out the supposed errors in the examiner's action. The applicant must respond to every ground of objection and rejection in the prior Office action (except that a request may be made that objections or requirements as to form not necessary to further consideration of the claims be held in abeyance until allowable subject matter is indicated), and the applicant's action must appear throughout to be a bona fide attempt to advance the case to final action. The mere allegation that the examiner has erred will not be received as a proper reason for such reconsideration.

Applicant or Patentee: _____ Attorney's
 Serial or Patent No.: _____ Docket No.: _____
 Filed or Issued: _____
 For: _____

**VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY
 STATUS (37 CFR 1.9 (f) and 1.27 (b)) — INDEPENDENT INVENTOR**

As a below named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 CFR 1.9 (c) for purposes of paying reduced fees under section 41 (a) and (b) of Title 35, United States Code, to the Patent and Trademark Office with regard to the invention entitled _____ described in

- ☐ the specification filed herewith
☐ application serial no. _____, filed _____
☐ patent no. _____, issued _____

I have not assigned, granted, conveyed or licensed and am under no obligation under contract or law to assign, grant, convey or license, any rights in the invention to any person who could not be classified as an independent inventor under 37 CFR 1.9 (c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 CFR 1.9 (d) or a nonprofit organization under 37 CFR 1.9 (e).

Each person, concern or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:

- ☐ no such person, concern, or organization
☐ persons, concerns or organizations listed below*

*NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

FULL NAME _____
 ADDRESS _____
☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

FULL NAME _____
 ADDRESS _____
☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

FULL NAME _____
 ADDRESS _____
☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28 (b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF INVENTOR NAME OF INVENTOR NAME OF INVENTOR

Signature of Inventor Signature of Inventor Signature of Inventor

Date Date Date

DECLARATION FOR PATENT APPLICATION

Docket Number (Optional)

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled _____, the specification of which

is attached hereto unless the following box is checked:

☐ was filed on _____ as United States Application Number or PCT International Application Number _____ and was amended on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

Priority Claimed

☐ Yes ☐ No

_____ (Number)	_____ (Country)	_____ (Day/Month/Year Filed)
-------------------	--------------------	---------------------------------

☐ Yes ☐ No

_____ (Number)	_____ (Country)	_____ (Day/Month/Year Filed)
-------------------	--------------------	---------------------------------

☐ Yes ☐ No

_____ (Number)	_____ (Country)	_____ (Day/Month/Year Filed)
-------------------	--------------------	---------------------------------

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

_____ (Application Number)	_____ (Filing Date)	_____ (Status - patented, pending, abandoned)
-------------------------------	------------------------	--

_____ (Application Number)	_____ (Filing Date)	_____ (Status - patented, pending, abandoned)
-------------------------------	------------------------	--

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Address all telephone calls to _____ at telephone number _____

Address all correspondence to _____

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor (given name, family name) _____

Inventor's signature _____ Date _____

Residence _____ Citizenship _____

Post Office Address _____

Full name of second joint inventor, if any (given name, family name) _____

Second Inventor's signature _____ Date _____

Residence _____ Citizenship _____

Post Office Address _____

☐ Additional inventors are being named on separately numbered sheets attached hereto.

AMENDMENT TRANSMITTAL LETTER

Docket Number (Optional)

Application Number

Filing Date

Examiner

Group
Art Unit

Invention Title

TO THE COMMISSIONER OF PATENTS AND TRADEMARKS

Transmitted herewith is an amendment in the above - identified application.

- ☐ Small Entity status of this application has been established under 37 CFR 1.27 by a verified statement previously submitted.
- ☐ A verified statement to establish Small Entity status under 37 CFR 1.27 is enclosed.
- ☐ No additional fee is required.
- ☐ The fee has been calculated as shown below:

CLAIMS AS AMENDED

	(1)		(2)	(3)		
	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT NUMBER EXTRA	RATE	FEE
TOTAL CLAIMS	*	minus	**		x \$20	
INDEPENDENT CLAIMS	*	minus	***		x \$72	
MULTIPLE DEPENDENT CLAIM ADDED					\$220	
					TOTAL	\$
If applicant has small entity status under 37 CFR 1.9 and 1.27, then divide total fee by 2, and enter amount here.					SMALL ENTITY TOTAL	\$

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3

** If the highest number previously paid for IN THIS SPACE is less than 20, enter "20".

*** If the highest number previously paid for IN THIS SPACE is less than 3, enter "3".

The "highest number previously paid for" (total or independent) is the highest number found in the appropriate box in column 1.

- ☐ Please charge Deposit Account Number _____ in the amount of \$ _____.
A duplicate copy of this sheet is enclosed.
- ☐ A check in the amount of \$ _____ to cover the filing fee is enclosed.
- ☐ The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account Number _____.
A duplicate copy of this sheet is enclosed.
- ☐ Any additional filing fees required under 37 CFR 1.16.
- ☐ Any patent application processing fees under 37 CFR 1.17.

Date_____
Signature

PATENT APPLICATION TRANSMITTAL LETTER

Docket Number (Optional)

To the Commissioner of Patents and Trademarks:

Transmitted herewith for filing under 35 U.S.C. 111 and 37 CFR 1.53 is the patent application of

entitled _____

Enclosed are:

- ☐ _____ pages of written description, claims and abstract.
- ☐ _____ sheets of drawings.
- ☐ an assignment of the invention to _____
- ☐ executed declaration of the inventors.
- ☐ a certified copy of a _____ application.
- ☐ associate power of attorney.
- ☐ a verified statement to establish small entity status under 37 CFR 1.9 and 1.27.
- ☐ information disclosure statement
- ☐ preliminary amendment
- ☐ other: _____

CLAIMS AS FILED

	NUMBER FILED	NUMBER EXTRA	RATE	FEE
BASIC FEE			\$690	\$690
TOTAL CLAIMS	- 20 =	*	x \$20	
INDEPENDENT CLAIMS	- 3 =	*	x \$72	
MULTIPLE DEPENDENT CLAIM PRESENT			\$220	
* NUMBER EXTRA MUST BE ZERO OR LARGER			TOTAL	\$
If applicant has small entity status under 37 CFR 1.9 and 1.27, then divide total fee by 2, and enter amount here.			SMALL ENTITY TOTAL	\$

- ☐ A check in the amount of \$ _____ to cover the filing fee is enclosed.
- ☐ The Commissioner is hereby authorized to charge and credit Deposit Account No. _____ as described below. I have enclosed a duplicate copy of this sheet.
 - ☐ Charge the amount of \$ _____ as filing fee.
 - ☐ Credit any overpayment.
 - ☐ Charge any additional filing fees required under 37 CFR 1.16 and 1.17.
 - ☐ Charge the issue fee set in 37 CFR 1.18 at the mailing of the Notice of Allowance, pursuant to 37 CFR 1.311(b).

Date

Signature

Typed or printed name

Address

In amending an application in response to a rejection, the applicant must clearly point out why he/she thinks the amended claims are patentable in view of the state of the art disclosed by the prior references cited or the objections made. He/she must also show how the claims as amended avoid such references or objections.

After response by applicant the application will be reconsidered, and the applicant will be notified if claims are rejected, or objections or requirements made, in the same manner as after the first examination. The second Office action usually will be made final.

Final Rejection

On the second or later consideration, the rejection or other action may be made final. The applicant's response is then limited to appeal in the case of rejection of any claim and further amendment is restricted. Petition may be taken to the Commissioner in the case of objections or requirements not involved in the rejection of any claim. Response to a final rejection or action must include cancellation of, or appeal from the rejection of, each claim so rejected and, if any claim stands allowed, compliance with any requirement or objection as to form.

In making such final rejection, the examiner repeats or states all grounds of rejection then considered applicable to the claims in the application.

Interviews with examiners may be arranged, but an interview does not remove the necessity for response to Office actions within the required time, and the action of the Office is based solely on the written record.

If two or more inventions are claimed in a single application, and are regarded by the Office to be of such a nature that a single patent should not be issued for both of them, the applicant will be required to limit the application to one of the inventions. The other invention may be made the subject of a separate application which, if filed while the first application is still pending, will be entitled to the benefit of the filing date of the first application. A requirement to restrict the application to one invention may be made before further action by the examiner.

As a result of the examination by the Office, patents are granted in the case of about two out of every three applications for patents which are filed.

AMENDMENTS TO APPLICATION

Following are some details concerning amendments to the application:

The applicant may amend before or after the first examination and action as specified in the rules, or when and as specifically required by the examiner.

After final rejection or action amendments may be made canceling claims or complying with any requirement of form which has been made but the admission of any such amendment or its refusal, and any proceedings relative thereto, shall not operate to relieve the application from its condition as subject to appeal or to save it from abandonment.

If amendments touching the merits of the application are presented after final rejection, or after appeal has been taken, or when such amendment might not otherwise be proper, they may be admitted upon a showing of good and sufficient reasons why they are necessary and were not earlier presented.

No amendment can be made as a matter of right in appealed cases. After decision on appeal, amendments can only be made as provided in the rules.

The specifications, claims, and drawing must be amended and revised when required, to correct inaccuracies of description and definition of unnecessary words, and to secure correspondence between the claims, the description, and the drawing.

All amendments of the drawings or specifications, and all additions thereto, must conform to at least one of them as it was at the time of the filing of the application. Matter not found in either, involving a departure from or an addition to the original disclosure, cannot be added to the application even though supported by a supplemental oath or declaration, and can be shown or claimed only in a separate application.

The claims may be amended by canceling particular claims, by presenting new claims, or by amending the language of particular claims (such amended claims being in effect new claims). In presenting new or amended claims, the applicant must point out how they avoid any reference or ground rejection of record which may be pertinent.

Erasures, additions, insertions, or alterations of the papers and records must not be made by the applicant. Amendments are made by filing a paper, directing or requesting that specified changes or additions be made. The exact word or words to be stricken out or inserted in the application must be specified and the precise point indicated where the deletion or insertion is to be made.

Amendments are "entered" by the Office by making the proposed deletions by drawing a line in red ink through the word or words canceled and by making the proposed substitutions or insertions in red ink, small insertions being written in at the designated place and larger insertions being indicated by reference.

No change in the drawing may be made except by permission of the Office. Changes in the construction shown in any drawing may be made only by submitting new drawings. A sketch in permanent ink showing proposed changes, to become part of the record, must be filed for approval by the Office before the new drawings are filed. The paper requesting amendments to the drawing should be separate from other papers.

If the number or nature of the amendments render it difficult to consider the case, or to arrange the papers for printing or copying, the examiner may require the entire specification or claims, or any part thereof, to be rewritten.

The original numbering of the claims must be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When claims are added by amendment or substituted for canceled claims, they must be numbered by the applicant consecutively beginning with the number next following the highest numbered claim previously presented. When the application is ready for allowance, the examiner, if necessary, will renumber the claims consecutively in the order in which they appear or in such order as may have been requested by applicant.

TIME FOR RESPONSE AND ABANDONMENT

The response of an applicant to an action by the Office must be made within a prescribed time limit. The maximum period for response is set at 6 months by the statute which also provides that the Commissioner may shorten the time for reply to not less than 30 days. The usual period for response to an Office action is 3 months. A shortened time for reply may be extended up to the maximum 6 months period. An extension of time fee is normally required to be paid if the response period is extended. The amount of the fee is dependent upon the length of the extension. If no reply is received within the time period, the application is considered as abandoned and no longer pending. However, if it can be shown that the failure to prosecute was unavoidable or unintentional, the application may be revived by the Commissioner. The revival requires a petition to the Commissioner, and a fee for the petition, which should be filed without delay. The proper response must also accompany the petition if it has not yet been filed.

APPEAL TO THE BOARD OF PATENT APPEALS AND INTERFERENCES AND TO THE COURTS

If the examiner persists in the rejection of any of the claims in an application, or if the rejection has been made final, the applicant may appeal to the Board of Patent Appeals and Interferences in the Patent and Trademark Office. The Board of Patent Appeals and Interferences consists of the Commissioner of Patents and Trademarks, the Deputy Commissioner, the Assistant Commissioners, and the examiners-in-chief, but normally each appeal is heard by only three members. An appeal fee is required and the applicant must file a brief to support his/her position. An oral hearing will be held if requested upon payment of the specified fee.

As an alternative to appeal, in situations where an applicant desires consideration of different claims or further evidence, a new continuation application is often filed. The new application requires a filing fee and should submit the claims and evidence for which consideration is desired. If it is filed before expiration of the period for appeal and specific reference is made therein to the earlier application, applicant will be entitled to the earlier filing date for subject matter common to both applications.

If the decision of the Board of Patent Appeals and Interferences is still adverse to the applicant, an appeal may be taken to the Court of Appeals for the Federal Circuit or a civil action may be filed against the Commissioner in the United States District Court for the District of Columbia. The Court of Appeals for the Federal Circuit will review the record made in the Office and may affirm or reverse the office's action. In a civil action, the applicant may present testimony in the court, and the court will make a decision.

INTERFERENCES

Occasionally two or more applications are filed by different inventors claiming substantially the same patentable invention. The patent can only be granted to one of them, and a proceeding known as an "interference" is instituted by the Office to determine who is the first inventor and entitled to the patent. About 1 percent of the applications filed become involved in an interference proceeding. Interference proceedings may also be instituted between an application and a patent already issued, provided the patent has not been issued for more than one year prior to the filing of the conflicting application, and provided that the conflicting application is not barred from being patentable for some other reason.

Each party to such a proceeding must submit evidence of facts proving when the invention was made. In view of the necessity of proving the various facts and circumstances concerning the making of the invention during an interference, inventors must be able to produce evidence to do this. If no evidence is submitted a party is restricted to the date of filing the application as his earliest date. The priority question is determined by a board of three Examiners-in-Chief on the evidence submitted. From the decision of the Board of Patent Appeals and Interferences, the losing party may appeal to the Court of Appeals for the Federal Circuit or file a civil action against the winning party in the appropriate United States district court.

The terms "conception of the invention" and "reduction to practice" are encountered in connection with priority questions. Conception of the invention refers to the completion of the devising of the means for accomplishing the result. Reduction to practice refers to the actual construction of the invention in physical form; in the case of a machine it includes the actual building of the machine, in the case of an article or composition it includes the actual making of the article or composition, in the case of a process it includes the actual carrying out of the steps of the process; and actual operation, demonstration, or testing for the intended use is also usually necessary. The filing of a regular application for patent completely disclosing the invention is treated as equivalent to reduction to practice. The inventor who proves to be the first to conceive the invention and the first to reduce it to practice will be held to be the prior inventor, but more complicated situations cannot be stated this simply.

ALLOWANCE AND ISSUE OF PATENT

If, on examination of the application, or at a later stage during the reconsideration of the application, the patent application is found to be allowable, a notice of allowance will be sent to the applicant, or to applicant's attorney or agent, and a fee for issuing the patent is due within three months from the date of the notice.

The issue fee is due within three months after a written notice of allowance is mailed to the applicant. If timely payment is not made the application will be regarded as abandoned. See current fee schedule.

A provision is made in the statute whereby the Commissioner may accept the fee late, on a showing of unavoidable delay. When the issue fee is paid, the patent issues as soon as possible after the date of payment, dependent upon the volume of printing on hand. The patent grant then is delivered or mailed on the day of its grant, or as soon thereafter as possible, to the inventor's attorney or agent if there is one of record, otherwise directly to the inventor. On the date of the grant, the patent file becomes open to the public. Printed copies of the specification and drawing are available on the same date.

In case the publication of an invention by the granting of a patent would be detrimental to the national defense, the patent law gives the Commissioner the power to withhold the grant of the patent and to order the invention kept secret for such period of time as the national interest requires.

NATURE OF PATENT AND PATENT RIGHTS

The patent is issued in the name of the United States under the seal of the Patent and Trademark Office, and is either signed by the Commissioner of Patents and Trademarks or has his name written thereon and attested by an Office official. The patent contains a grant to the patentee and a printed copy of the specification and drawing is annexed to the patent and forms a

part of it. The grant confers "the right to exclude others from making, using or selling the invention throughout the United States" and its territories and possessions for the term of 17 years subject to the payment of maintenance fees as provided by law.

The exact nature of the right conferred must be carefully distinguished, and the key is in the words "right to exclude" in the phrase just quoted. The patent does not grant the right to make, use, or sell the invention but only grants the exclusive nature of the right. Any person is ordinarily free to make, use, or sell anything he pleases, and a grant from the Government is not necessary. The patent only grants the right to exclude others from making, using, or selling the invention. Since the patent does not grant the right to make, use, or sell the invention, the patentee's own right to do so is dependent upon the rights of others and whatever general laws might be applicable. A patentee, merely because he or she has received a patent for an invention, is not thereby authorized to make, use or sell the invention if doing so would violate any law. An inventor of a new automobile who has obtained a patent thereon would not be entitled to use the patented automobile in violation of the laws of a State requiring a license, nor may a patentee sell an article the sale of which may be forbidden by a law, merely because a patent has been obtained. Neither may a patentee make, use or sell his/her own invention if doing so would infringe the prior rights of others. A patentee may not violate the Federal antitrust laws, such as by resale price agreements or entering into combination in restraints of trade, or the pure food and drug laws, by virtue of having a patent. Ordinarily there is nothing which prohibits a patentee from making, using, or selling his/her own invention, unless he/she thereby infringes another's patent which is still in force.

Since the essence of the right granted by a patent is the right to exclude others from commercial exploitation of the invention, the patentee is the only one who may make, use, or sell the invention. Others may not do so without authorization from the patentee. The patentee may manufacture and sell the invention or may license, that is, give authorization to others to do so.

The term of a patent is 17 years. A maintenance fee is due 3½, 7½ and 11½ years after the original grant for all patents issuing from the applications filed on and after December 12, 1980. The maintenance fee must be paid at the stipulated times to maintain the patent in force. After the patent has expired anyone may make, use, or sell the invention without permission of the patentee, provided that matter covered by other unexpired patents is not used. The terms may not be extended except by special act of Congress except for certain pharmaceuticals.

MAINTENANCE FEES

All utility patents which issue from applications filed on and after December 12, 1980 are subject to the payment of maintenance fees which must be paid to maintain the patent in force. These fees are due at 3½, 7½ and 11½ years from the date the patent is granted and can be paid without a surcharge during the "window-period" which is the six month period

preceding each due date, e.g., 3 years to 3 years and six months, etc. See fee schedule for a list of maintenance fees.

Failure to pay the current maintenance fee on time may result in expiration of the patent. A six month grace period is provided when the maintenance fee may be paid with a surcharge. The grace period is the six month period immediately following the due date. The Patent and Trademark Office does not mail notices to patent owners that maintenance fees are due. If, however, the maintenance fee is not paid on time, efforts are made to remind the responsible party that the maintenance fee may be paid during the grace period with a surcharge.

Patents relating to some pharmaceutical inventions may be extended by the Commissioner for up to five years to compensate for marketing delays due to Federal premarketing regulatory procedures. Patents relating to all other types of inventions can only be extended by enactment of special Federal legislation.

CORRECTION OF PATENTS

Once the patent is granted, it is outside the jurisdiction of the Patent and Trademark Office except in a few respects.

The Office may issue without charge a certificate correcting a clerical error it has made in the patent when the printed patent does not correspond to the record in the Office. These are mostly corrections of typographical errors made in printing.

Some minor errors of a typographical nature made by the applicant may be corrected by a certificate of correction for which a charge is made.

The patentee may disclaim one or more claims of this patent by filing in the Office a disclaimer as provided by the statute.

When the patent is defective in certain respects, the law provides that the patentee may apply for a reissue patent. This is a patent granted to replace the original and is granted only for the balance of the unexpired term. However, the nature of the changes that can be made by means of the reissue are rather limited; new matter cannot be added.

Any person may file a request for reexamination of a patent, along with the required fee, on the basis of prior art consisting of patents or printed publications. At the conclusion of the reexamination proceedings, a certificate setting forth the results of the reexamination proceeding is issued.

ASSIGNMENTS AND LICENSES

A patent is personal property and may be sold to others or mortgaged; it may be bequeathed by a will, and it may pass to the heirs of deceased patentee. The patent law provides for the transfer or sale of a patent, or of an application for patent, by an instrument in writing. Such an instrument is referred to as an assignment and may transfer the entire interest in the patent. The assignee, when the patent is assigned to him or her, becomes the owner of the patent and has the same rights that the original patentee had.

The statute also provides for the assignment of a part interest, that is, a half interest, a fourth interest, etc., in a patent. There may also be a grant which conveys the same character of interest as an assignment but only for a particularly specified part of the United States.

A mortgage of patent property passes ownership thereof to the mortgagee or lender until the mortgage has been satisfied and a retransfer from the mortgagee back to the mortgagor, the borrower, is made. A conditional assignment also passes ownership of the patent and is regarded as absolute until canceled by the parties or by the decree of a competent court.

An assignment, grant, or conveyance of any patent or application for patent should be acknowledged before a notary public or officer authorized to administer oaths or perform notarial acts. The certificate of such acknowledgment constitutes prima facie evidence of the execution of the assignment, grant, or conveyance.

Recording of Assignments

The Office records assignments, grants, and similar instruments sent to it for recording, and the recording serves as notice. If an assignment, grant, or conveyance of a patent or an interest in a patent (or an application for patent) is not recorded in the Office within three months from its date, it is void against a subsequent purchaser for a valuable consideration without notice, unless it is recorded prior to the subsequent purchase.

An instrument relating to a patent should identify the patent by number and date (the name of the inventor and title of the invention as stated in the patent should also be given). An instrument relating to an application should identify the application by its serial number and date of filing, and the name of the inventor and title of the invention as stated in the application should also be given. Sometimes an assignment of an application is executed at the same time that the application is prepared and before it has been filed in the Office. Such assignment should adequately identify the application, as by its date of execution and name of the inventor and title of the invention, so that there can be no mistake as to the application intended.

If an application has been assigned and the assignment is recorded, on or before the date the issue fee is paid, the patent will be issued to the assignee as owner. If the assignment is of a part interest only, the patent will be issued to the inventor and assignee as joint owners.

Joint Ownership

Patents may be owned jointly by two or more persons as in the case of a patent granted to joint inventors, or in the case of the assignment of a part interest in a patent. Any joint owner of a patent, no matter how small the part interest, may make, use, and sell the invention for his or her own profit, without regard to the other owner, and may sell the interest or any part of it, or grant licenses to others, without regard to the other joint owner, unless the joint owners have made a contract governing their relation to each other. It is accordingly dangerous to assign a part interest without a definite agreement between the parties as to the extent of their

respective rights and their obligations to each other if the above result is to be avoided.

The owner of a patent may grant licenses to others. Since the patentee has the right to exclude others from making, using or selling the invention, no one else may do any of these things without his permission. A license is the permission granted by the patent owner to another to make, use, or sell the invention. No particular form of license is required; a license is a contract and may include whatever provisions the parties agree upon, including the payment of royalties, etc.

The drawing up of a license agreement (as well as assignments) is within the field of an attorney at law, although such attorney should be familiar with patent matters as well. A few States have prescribed certain formalities to be observed in connection with the sale of patent rights.

INFRINGEMENT OF PATENTS

Infringement of a patent consists in the unauthorized making, using, or selling of the patented invention within the territory of the United States, during the term of the patent. If a patent is infringed, the patentee may sue for relief in the appropriate Federal court. The patentee may ask the court for an injunction to prevent the continuation of the infringement and may also ask the court for an award of damages because of the infringement. In such an infringement suit, the defendant may raise the question of the validity of the patent, which is then decided by the court. The defendant may also aver that what is being done does not constitute infringement. Infringement is determined primarily by the language of the claims of the patent and, if what the defendant is making does not fall within the language of any of the claims of the patent, there is no infringement.

Suits for infringement of patents follow the rules of procedure of the Federal courts. From the decision of the district court, there is an appeal to the Court of Appeals for the Federal Circuit. The Supreme Court may thereafter take a case by writ of certiorari. If the United States Government infringes a patent, the patentee has a remedy for damages in the United States Claims Court. The Government may use any patented invention without permission of the patentee, but the patentee is entitled to obtain compensation for the use by or for the Government.

If the patentee notifies anyone that is infringing the patent or threatens suit, the one charged with infringement may start the suit in a Federal court.

The Office has no jurisdiction over questions relating to infringement of patents. In examining applications for patent, no determination is made as to whether the invention sought to be patented infringes any prior patent. An improvement invention may be patentable, but it might infringe a prior unexpired patent for the invention improved upon, if there is one.

PATENT MARKING AND "PATENT PENDING"

A patentee who makes or sells patented articles, or a person who does so for or under the patentee is required to mark the articles with the word

"Patent" and the number of the patent. The penalty for failure to mark is that the patentee may not recover damages from an infringer unless the infringer was duly notified of the infringement and continued to infringe after the notice.

The marking of an article as patented when it is not in fact patented is against the law and subjects the offender to a penalty.

Some persons mark articles sold with the terms "Patent Applied For" or "Patent Pending." These phrases have no legal effect, but only give information that an application for patent has been filed in the Patent and Trademark Office. The protection afforded by a patent does not start until the actual grant of the patent. False use of these phrases or their equivalent is prohibited.

DESIGN PATENTS

The patent laws provide for the granting of design patents to any person who has invented any new, original and ornamental design for an article of manufacture. The design patent protects only the appearance of an article, and not its structure or utilitarian features. The proceedings relating to granting of design patents are the same as those relating to other patents with a few differences.

See current fee schedule for the filing fee for a design application. A design patent has a term of 14 years, and no fees are necessary to maintain a design patent in force. If on examination it is determined that an applicant is entitled to a design patent under the law, a notice of allowance will be sent to the applicant or applicant's attorney, or agent, calling for the payment of an issue fee.

The drawing of the design patent conforms to the same rules as other drawings, but no reference characters are required.

The specification of a design application is short and ordinarily follows a set form. Only one claim is permitted, following a set form.

PLANT PATENTS

The law also provides for the granting of a patent to anyone who has invented or discovered and asexually reproduced any distinct and new variety of plant, including cultivated sports, mutants, hybrids, and newly found seedlings, other than a tuber-propagated plant or a plant found in an uncultivated state.

Asexually propagated plants are those that are reproduced by means other than from seeds, such as by the rooting of cuttings, by layering, budding, grafting, inarching, etc.

With reference to tuber-propagated plants, for which a plant patent cannot be obtained, the term "tuber" is used in its narrow horticultural sense as meaning a short, thickened portion of an underground branch. The only plants covered by the term "tuber-propagated" are the Irish potato and the Jerusalem artichoke.

An application for a plant patent consists of the same parts as other applications. A plant patent has term of 17 years.

The application papers for a plant patent and any responsive papers pursuant to the prosecution must be filed in duplicate but only one need be signed (in the case of the application papers the original should be signed); the second copy may be a legible copy of the original. The reason for providing an original and duplicate file is that the duplicate file is sent to the Agricultural Research Service, Department of Agriculture for an advisory report on the plant variety.

The specification should include a complete detailed description of the plant and the characteristics thereof that distinguish the same over related known varieties, and its antecedents, expressed in botanical terms in the general form followed in standard botanical text books or publications dealing with the varieties of the kind of plant involved (evergreen tree, dahlia plant, rose plant, apple tree, etc.), rather than a mere broad nonbotanical characterization such as commonly found in nursery or seed catalogs. The specification should also include the origin or parentage of the plant variety sought to be patented and must particularly point out where and in what manner the variety of plant has been asexually reproduced. Where color is a distinctive feature of the plant the color should be positively identified in the specification by reference to a designated color as given by a recognized color dictionary. Where the plant variety originated as a newly found seedling, the specification must fully describe the conditions (cultivation, environment, etc.) under which the seedling was found growing to establish that it was not found in an uncultivated state.

A plant patent is granted on the entire plant. It therefore follows that only one claim is necessary and only one is permitted.

The oath or declaration required of the applicant in addition to the statements required for other applications must include the statement that the applicant has asexually reproduced the new plant variety.

Plant patent drawings are not mechanical drawings and should be artistically and competently executed. The drawing must disclose all the distinctive characteristics of the plant capable of visual representation. When color is a distinguishing characteristic of the new variety, the drawing must be in color. Two duplicate copies of color drawings must be submitted. Color drawings may be made either in permanent water color or oil, or in lieu thereof may be photographs made by color photography or properly colored on sensitized paper. The paper in any case must correspond in size, weight, and quality to the paper required for other drawings. Mounted photographs are acceptable.

Specimens of the plant variety, its flower or fruit, should not be submitted unless specifically called for by the examiner.

The filing fee on each plant application and the issue fee can be found in the fee schedule. For a qualifying small entity filing and issue fees are reduced by half.

All inquiries relating to plant patents and pending plant patent applications should be directed to the Patent and Trademark Office and not to the Department of Agriculture.

The Plant Variety Protection Act (Public Law 91-577), approved December 24, 1970) provides for a system of protection for sexually reproduced varieties, for which protection was not previously provided, under the administration of a Plant Variety Protection Office within the Department of Agriculture. Requests

for information regarding the protection of sexually reproduced varieties should be addressed to Commissioner, Plant Variety Protection Office, Agricultural Marketing Service, National Agricultural Library Bldg., Room 500, 10301 Baltimore Blvd., Beltsville, Md. 20705-2351.

TREATIES AND FOREIGN PATENTS

Since the rights granted by a United States patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in other countries must apply for a patent in each of the other countries or in regional patent offices. Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country, in accordance with the requirements of that country.

The laws of many countries differ in various respects from the patent law of the United States. In most foreign countries, publication of the invention before the date of the application will bar the right to a patent. In most foreign countries maintenance fees are required. Most foreign countries require that the patented invention must be manufactured in that country after a certain period, usually three years. If there is no manufacture within this period, the patent may be void in some countries, although in most countries the patent may be subject to the grant of compulsory licenses to any person who may apply for a license.

There is a treaty relating to patents which is adhered to by 100 countries, including the United States, and is known as the Paris Convention for the Protection of Industrial Property. It provides that each country guarantees to the citizens of the other countries the same rights in patent and trademark matters that it gives to its own citizens. The treaty also provides for the right of priority in the case of patents, trademarks and industrial designs (design patents). This right means that, on the basis of a regular first application filed in one of the member countries, the applicant may, within a certain period of time, apply for protection in all the other member countries. These later applications will then be regarded as if they had been filed on the same day as the first application. Thus, these later applicants will have priority over applications for the same invention which may have been filed during the same period of time by other persons. Moreover, these later applications, being based on the first application, will not be invalidated by any acts accomplished in the interval, such as, for example, publication or exploitation of the invention, the sale of copies of the design, or use of the trademark. The period of time mentioned above, within which the subsequent applications may be filed in the other countries, is 12 months in the case of first applications for patent and six months in the case of industrial designs and trademarks.

Another treaty, known as the Patent Cooperation Treaty, was negotiated at a diplomatic conference in Washington, D.C., in June of 1970. The treaty came into force on January 24, 1978, and is presently adhered to by 44 countries, including the United States. The treaty facilitates the filing of applications for patent on the same invention in member countries by providing, among other things, for centralized filing procedures and a standardized application format.

The timely filing of an international application affords applicants an international filing date in each country which is designated in the international application and provides (1) a search of the invention and (2) a later time period within which the national applications for patent must be filed.

A number of patent attorneys specialize in obtaining patents in foreign countries. In general, an inventor should be satisfied that he could make some profit from foreign patents or that there is some particular reason for obtaining them, before he attempts to apply for foreign patents.

Under United States law it is necessary, in the case of inventions made in the United States, to obtain a license from the Commissioner of Patents and Trademarks before applying for a patent in a foreign country. Such a license is required if the foreign application is to be filed before an application is filed in the United States or before the expiration of six months from the filing of an application in the United States. The filing of an application for patent constitutes the request for a license and the granting or denial of such request is indicated in the filing receipt mailed to each applicant. After six months from the United States filing, a license is not required unless the invention has been ordered to be kept secret. If the invention has been ordered to be kept secret, the consent to the filing abroad must be obtained from the Commissioner of Patents and Trademarks during the period the order of secrecy is in effect.

FOREIGN APPLICANTS FOR UNITED STATES PATENTS

The patent laws of the United States make no discrimination with respect to the citizenship of the inventor. Any inventor, regardless of his citizenship, may apply for a patent on the same basis as a U.S. citizen. There are, however, a number of particular points of special interest to applicants located in foreign countries.

The application for patent in the United States must be made by the inventor and the inventor must sign the oath or declaration (with certain exceptions), differing from the law in many countries where the signature of the inventor and an oath of inventorship are not necessary. If the inventor is dead, the application may be made by his executor or administrator, or equivalent, and in the case of mental disability it may be made by his legal representative (guardian).

No United States patent can be obtained if the invention was patented abroad before applying in the United States by the inventor or his legal representatives or assigns on an application filed more than 12 months before filing in the United States. Six months are allowed in the case of a design patent.

An application for a patent filed in the United States by any person who has previously regularly filed an application for a patent for the same invention in a foreign country which affords similar privileges to citizens of the United States shall have the same force and effect for the purpose of overcoming intervening acts of others as if filed in the United States on the date on which the application for a patent for the same invention was first

filed in such foreign country, provided the application in the United States is filed within 12 months (six months in the case of a design patent) from the earliest date on which any such foreign application was filed. A copy of the foreign application certified by the patent office of the country in which it was filed is required to secure this right of priority.

If any application for patent has been filed in any foreign country by the applicant or by his legal representatives or assigns prior to his application in the United States, the applicant must, in the oath or declaration accompanying the application, state the country in which the earliest such application has been filed, giving the date of filing the application; and all applications filed more than a year before the filing in the United States must also be recited in the oath or declaration.

An oath or declaration must be made with respect to every application. When the applicant is in a foreign country the oath or affirmation may be before any diplomatic or consular officer of the United States, or before any officer having an official seal and authorized to administer oaths in the foreign country, whose authority shall be proved by a certificate of a diplomatic or consular officer of the United States, the oath being attested in all cases by the proper official seal of the officer before whom the oath is made.

When the oath is taken before an officer in the country foreign to the United States, all the application papers (except the drawing) must be attached together and a ribbon passed one or more times through all the sheets of the application, and the ends of the ribbons brought together under the seal before the latter is affixed and impressed, or each sheet must be impressed with the official seal of the officer before whom the oath was taken.

If the application is filed by the legal representative (executive, administrator, etc.) of a deceased inventor, the legal representative must make the oath or declaration.

When a declaration is used, the ribboning procedure is not necessary, nor is it necessary to appear before an official in connection with the making of a declaration.

A foreign applicant may be represented by any patent attorney or agent who is registered to practice before the United States Patent and Trademark Office.

FEES AND PAYMENT

Following is a list of patent related fees and charges which are payable to the Patent and Trademark Office:

Filing Fees	Fee	Small Entity Fee if Applicable
Basic filing fee - utility	690.00	345.00
Independent claims in excess of three	72.00	36.00
Claims in excess of twenty	20.00	10.00
Multiple dependent claim	220.00	110.00
Surcharge-Late filing fee or oath or declaration.....	130.00	65.00
Design filing fee	280.00	140.00
Plant filing fee	460.00	230.00

Reissue filing fee	690.00	345.00
Reissue independent claims over original patent	72.00	36.00
Reissue claims in excess of 20 and over original patent ..	20.00	10.00
Non-English specification	130.00	

Extension Fees

Extension for response within first month	110.00	55.00
Extension for response within second month	350.00	175.00
Extension for response within third month	810.00	405.00
Extension for response within fourth month	1,280.00	640.00

Appeals/Interference Fees

Notice of appeal	260.00	130.00
Filing a brief in support of an appeal	260.00	130.00
Request for oral hearing	220.00	110.00

Issue Fees

Utility issue fee	1,130.00	565.00
Design issue fee	400.00	200.00
Plant issue fee	570.00	285.00

Miscellaneous Fees

Extension of term patent	1,000.00	
Requesting publication of SIR - Prior to examiner's action	790.00*	
Requesting publication of SIR - After examiner's action	1,580.00*	
Certificate of correction	70.00	
For filing a request for reexamination	2,180.00	
Statutory Disclaimer	110.00	55.00

Patent Petition Fees

Petitions to the Commissioner, unless otherwise specified	130.00	
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A. If each had a share in the ideas forming the invention, they are joint inventors and a patent will be issued to them jointly on the basis of a proper patent application. If on the other hand one of these persons has provided all of the ideas of the invention, and the other has only followed instructions in making it, the person who contributed the ideas is the sole inventor and the patent application and patent shall be in his name alone.

6. Q. If one person furnishes all of the ideas to make an invention and another employs him or furnishes the money for building and testing the invention, should the patent application be filed by them jointly?

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A. Yes. In your own or neighboring communities you may inquire of such organizations as chambers of commerce, and banks. Many communities have locally financed industrial development organizations which can help you locate manufacturers and individuals who might be interested in promoting your idea.

11. Q. Are there any state government agencies that can help me in developing and marketing of my invention?

A. Yes. In nearly all states there are state planning and development agencies or departments of commerce and industry which seek new product and new process ideas to assist manufacturers and communities in the state. If you do not know the names or addresses of your state organizations you can obtain this information by writing to the governor of your state.

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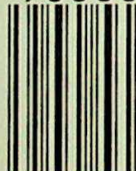
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